

**ABSTRACT**

A filter circuit is used to select frequency bands of digital and analog signals over communications channels in a DSL communications system. The filter circuit includes an inductor having a core that consists essentially of an Fe-base amorphous metal alloy.

5 Advantageously, the filter circuit provides as good or better performance than a filter circuit using a Co-base core; but is much less expensive. As such, it provides a low cost, high efficiency solution to communications applications, such as DSL communications systems, and the like.